

## **DETECTING PERIPHERAL POINTS OF REFLECTED RADIATION BEAM SPOTS FOR TOPOGRAPHICALLY MAPPING A SURFACE**

### **ABSTRACT**

Systems and methods of detecting peripheral points of reflected radiation  
5 beam spots for topographically mapping a surface are described. In one aspect, a  
radiation beam is directed toward a target location on the surface. An image of a  
beam spot is captured at a location in an image plane intersecting at least a  
portion of the radiation beam reflected from the target location on the surface. At  
least one image plane coordinate for a peripheral point of the beam spot image is  
10 identified. A relative height value is assigned to the target location based on a  
mapping of the at least one image plane coordinate identified for the peripheral  
beam spot point to the relative height value.